

2.3.2.10 Generators. (See Figure 2-15.) See Figure 1-2 for Independent Target System (ITS) components.

2.3.2.10.1 Detector Array.

WARNING

Never touch the vehicle exhaust equipment when installing or removing MILES 2000 equipment. The exhaust can be very hot and cause severe burns.

CAUTION

Do not let MILES 2000 cables touch the vehicle exhaust or heating equipment. Heat can cause damage to cables and/or malfunction of the equipment.

ITS vehicle configurations are varied, so there is no specific way to install the Detector Array on a vehicle. When installing the Detector Array, follow the guidelines below:

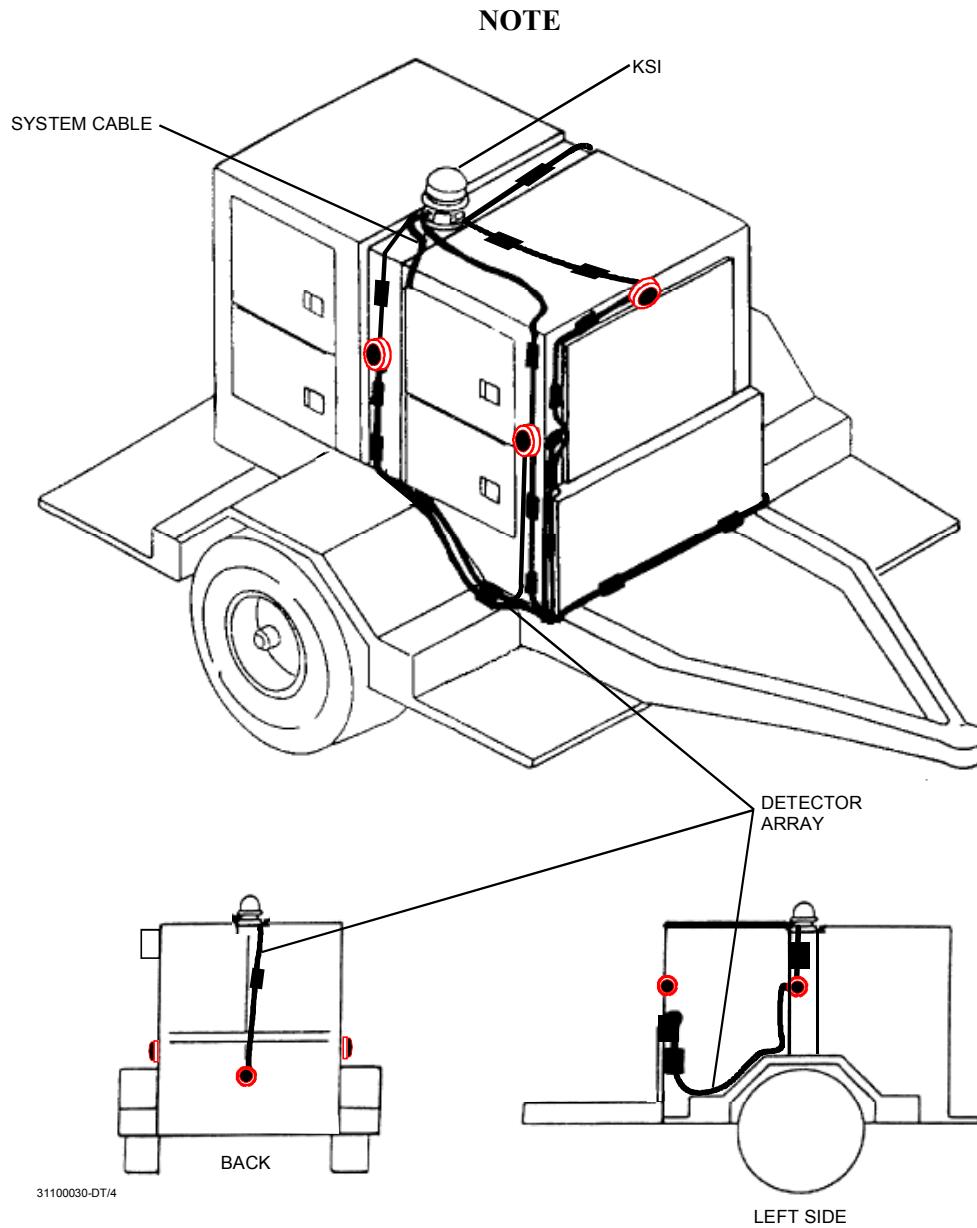
- a. Remove Detector Array from the transit case, and inspect cable segments and detectors for damage that would prevent normal operation.
- b. Wipe all detectors clean and inspect connector for dirt and/or damage.
- c. Replace and report damaged equipment, as required.
- d. When routing array segments, whenever possible, there should be detectors installed on the right and left sides as well as on the front and rear. However, this is an ideal layout that should only be used if placement can be accomplished without interfering with normal vehicle operations or presenting a safety hazard. In some cases, the cabling may not be long enough to put detectors on all four sides.
- e. Secure all array segments with fastener tape at frequent intervals. Extra cable between detectors should be rolled and secured to the vehicle.

2.3.2.10.2 Kill Status Indicator (KSI). See Figure 1-2 for KSI mounting adapters/plates.

- a. Remove the KSI and adapter from the transit case, and inspect the KSI for damage.
- b. Inspect connector for dirt and/or damage.
- c. Replace and report damaged equipment, as required.
- d. Apply primer and fastener tape to the bottom of the adapter, and to the KSI, if needed. (Refer to paragraph 2.3.1.1 for fastener tape application.)
- e. Apply primer and fastener tape to the top of the generator.

NOTE

For the following step, make sure that the KSI and the mast assembly are lined up as described before placing them together, as the fastener tape will make it difficult to separate the units to realign them.



Place Amplifier near the KSI

Figure 2-15. Generator MILES Installation.

- f. Attach the adapter to the fastener tape on the generator, and ensure that the KSI is securely mounted.

2.3.2.10.3 Control Unit (CU).

- a. Remove the CU from the transit case and inspect for damage.
- b. Inspect connector for dirt and/or damage.
- c. Replace and report damaged equipment, as required.
- d. Apply primer and fastener tape to the bottom of the CU, if needed. (Refer to paragraph 2.3.1.1 for fastener tape application.)
- e. Apply primer and fastener to tape an area where the CU will be out of the way (such as the right or left front platform of the generator trailer).
- f. Mount the CU to the generator's platform, and ensure it is firmly seated.

2.3.2.10.4 Power Controller.

- a. Remove the Power Controller from the transit case and inspect for damage.
- b. Inspect connector for dirt and/or damage.
- c. Replace and report damaged equipment, as required.
- d. Apply primer and two (2) strips fastener tape to the bottom of the Power Controller, if needed. (Refer to paragraph 2.3.1.1 for fastener tape application.)
- e. Apply primer and fastener tape to an area where the Power Controller will be out of the way. (Ensure the area, such as the right or left platform of the generator trailer, is sturdy enough to support the weight of the power controller.)
- f. Mount the Power Controller to the generator's platform, and ensure it is firmly seated.

2.3.2.10.5 System Cable.

NOTE

Route the cables and connect them to the individual units. Secure the cables safely out of the way using fastener tape tie-wraps at intervals.

Letter/number designators are shown in parenthesis. For example: (P3) or (J1).

The designators have been added to clarify connector identifications. Each system cable segment is labeled with its unique designator.

NOTE

Cable segments are labeled with "P" (plug) and "J" (jack) designators as shown in the following example: "P1/J2," where P1 indicates that the connector of that cable segment is plug #1, and J2 indicates the routing destination, jack #2, of the equipment/cable to which the cable segment is being routed. The installation instructions of this manual identify the equipment/cable to which each cable

segment is to be routed.

- a. Remove the system cable from the transit case. Inspect the entire length of the cable, making sure there are no bare wires exposed, and the cable has not been damaged in any way.
- b. Inspect connectors for dirt and/or damage.
- c. Replace and report damaged equipment, as required.
- d. Route segment (P5) to the vehicle power slave receptacle, and connect (P5) to the slave receptacle connector
- e. Route segment (P1-violet sleeve) through lower part of driver's door to the Power Controller, and connect (P1) to (J1) of the Power Controller
- f. Route segment (P2-red sleeve) to the CU, and connect (P2) to (J1) of the CU.
- g. Route segment (P3-green sleeve) through the upper part of the commander's door to the KSI, and connect (P3) to (J1) of the KSI.
- h. .Route segment (P4-gray sleeve) to the Detector Array, and connect (P4) to (J1) of the Detector Array.
- i. Secure all cables out of the way with fastener tape or fastener tape tie-wraps.
- j. Connect (P5) to the slave receptacle connector.

2.3.2.11 M109A6 Howitzer. (See Figure 2-16.) See Figure 1-2 for Independent Target System (ITS) components.

2.3.2.11.1 Detector Array.

WARNING

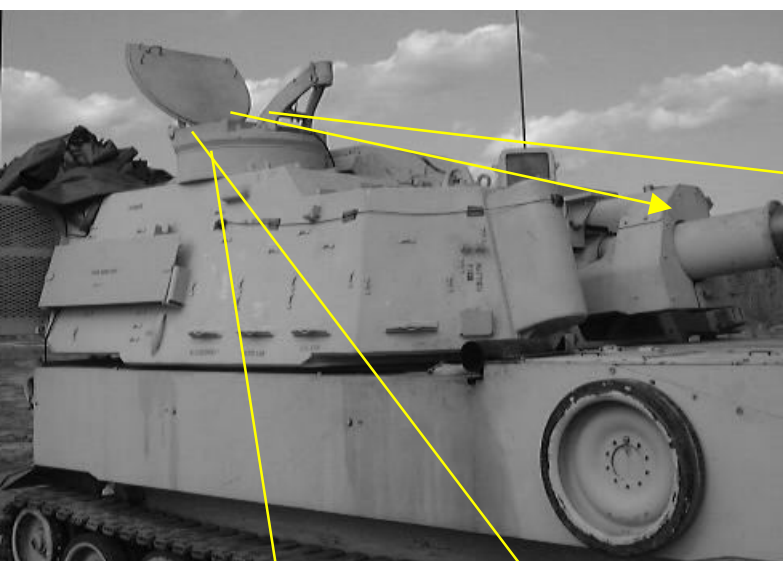
Never touch the vehicle exhaust equipment when installing or removing MILES 2000 equipment. The exhaust can be very hot and cause severe burns.

CAUTION

Do not let MILES 2000 cables touch the vehicle exhaust or heating equipment. Heat can cause damage to cables and/or malfunction of the equipment. Machine gun turret cannot turn with MILES equipment installed.

ITS vehicle configurations are varied, so there is no specific way to install the Detector Array on a vehicle. When installing the Detector Array, follow the guidelines below:

- a. Remove Detector Array from the transit case, and inspect cable segments and detectors for damage that would prevent normal operation.



KSI
AMPLIFIER



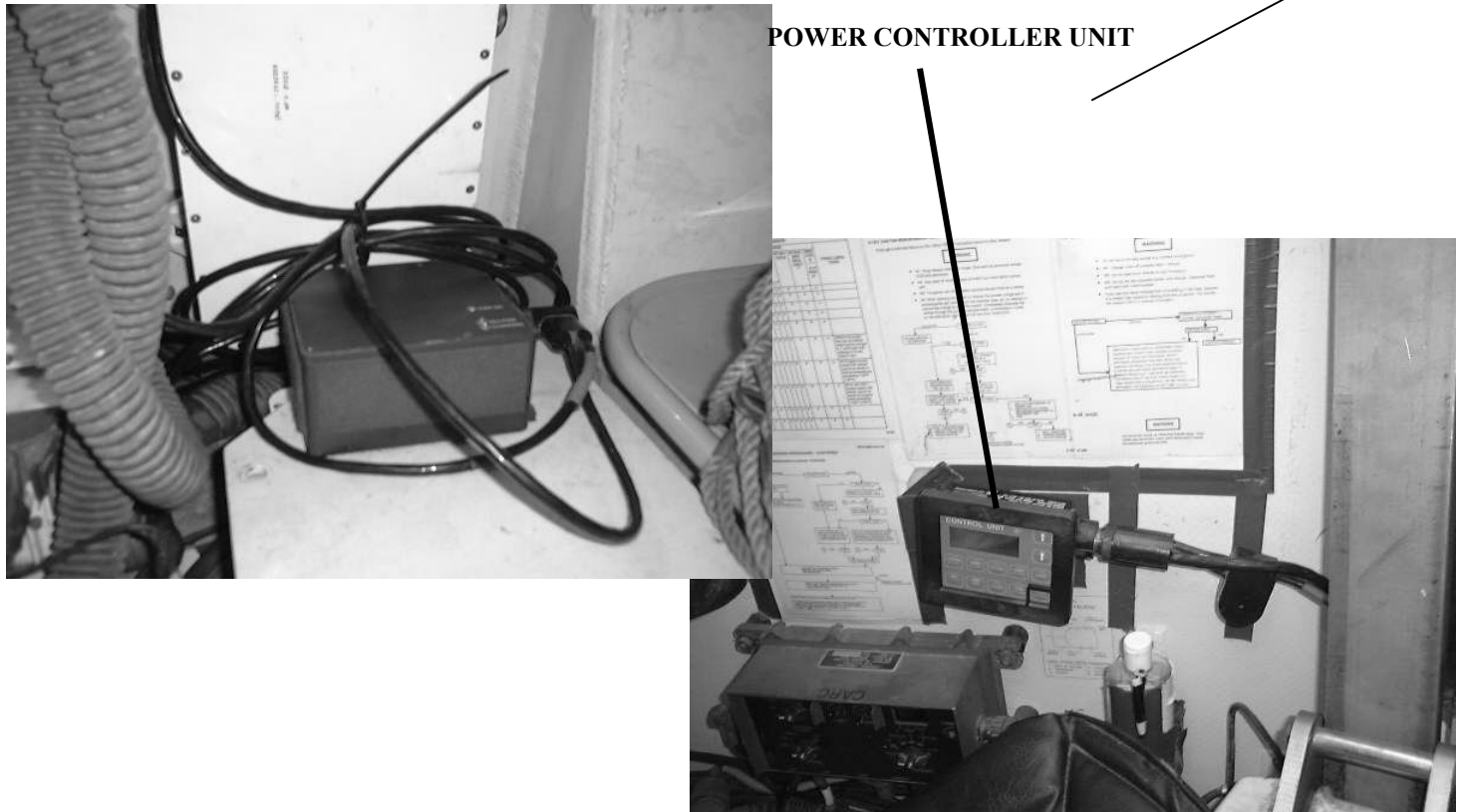


Figure 2-16. M109A6 Howitzer, MILES Installation (Sheet 2 of 2).

- b. Wipe all detectors clean and inspect connector for dirt and/or damage.
- c. Replace and report damaged equipment, as required.
- d. When routing array segment, whenever possible, there should be detectors installed on the right and left sides as well as on the front and rear. However, this is an ideal layout that should only be used if placement can be accomplished without interfering with normal vehicle operations or presenting a safety hazard. In some cases, the cabling may not be long enough to put detectors on all four sides.
- e. Secure all array segments with fastener tape at frequent intervals. Extra cable between detectors should be rolled and secured to the vehicle.

2.3.2.11.2 Kill Status Indicator (KSI). See Figure 1-2 for KSI mounting adapter/plates.

- a. Remove the KSI and the KSI mast U-bolt/square bolt assembly from the transit case, and inspect the KSI for damage.
- b. Inspect strobe assembly of the KSI for cracks. Inspect connector for dirt and/or damage.
- c. Replace and report damaged equipment, as required.
- d. Attach the mast assembly to the mounting plate with the four (4) bolts provided.
- e. Apply two (2) large strips of pile fastener tape to the bottom of the KSI (ensuring the center bolt is not obstructed), and two (2) large strips of hook fastener tape to the top of the mast (ensuring the mounting hole is not obstructed), if none exists. (Refer to paragraph 2.3.1.1 for fastener tape application.)

NOTE

For the following step, make sure the KSI and the mast assembly are lined up as described before placing them together, as the fastener tape will make it difficult to separate the units to realign them.

- f. After matching the center bolt with the mounting hole, making sure the four (4) rubber latches on the mast are in line with the four (4) latching brackets on the KSI, place the KSI securely (4) on the mast assembly.
- g. Pull each rubber latch up and over its latching bracket.
- h. Using the square bolt or U-bolt of the assembly, attach the KSI/mast assembly to the rear of the left lifting eye on the vehicle.
- i. Ensure that the KSI and mast assembly are securely mounted.

2.3.2.11.3 Direct/Indirect Fire Cue (DIFCUE). Refer to TD 9-6920-893-10/TM 6920-10/5 for installation instructions.

2.3.2.11.4 Control Unit (CU).

- a. Remove the CU from the transit case and inspect for damage.
- b. Inspect connector for dirt and/or damage.
- c. Replace and report damaged equipment, as required.
- d. Apply primer and fastener tape to the bottom of the CU, if needed. (Refer to paragraph 2.3.1.1 for fastener tape application.)
- e. Apply primer and fastener tape to the wall near the commander's hatch inside the vehicle.
- f. Mount the CU to the wall tape, and ensure that it is firmly seated.

2.3.2.11.5 Power Controller.

- a. Remove the Power Controller from the transit case and inspect for damage.

- b. Inspect connector for dirt and/or damage.
- c. Replace and report damaged equipment, as required.
- d. Apply primer and two (2) strips of fastener tape on the bottom of the Power Controller, if needed. (Refer to paragraph 2.3.1.1 for fastener tape application.)
- e. Apply primer and fastener tape to an area on the floor inside the vehicle where the Power Controller will be out of the way.
- f. Mount the Power Controller to the floor, and ensure it is firmly seated.

2.3.2.11.6 System Cable.

NOTE

Route the cables and connect them to the individual units. Secure the cables safely out of the way using fastener tape tie-wraps at intervals.

Letter/number designators are shown in parenthesis. For example: (P3) or (J1). The designators have been added to clarify connector identifications. Each system cable segment is labeled with its unique designator.

Cable segments are labeled with “P” (plug) and “J” (jack) designators as shown in the following example: “P1/J2,” where P1 indicates that the connector of that cable segment is plug #1, an J2 indicates the routing destination, jack #2, of the equipment/cable to which the cable segment is being routed. The installation instructions of this manual identify the equipment/cable to which each cable segment is to be routed.

NOTE

Inside/outside cable access is through the commander’s hatch vision block (with the machine gun ring locked).

- a. Remove the system cable from the transit case. Inspect the entire length of the cable, making sure there are no bare wires exposed, and the cable has not been damaged in any way.
- b. Inspect connectors for dirt and/or damage.
- c. Replace and report damaged equipment, as required.
- d. Route segment (P3-green sleeve) to the KSI, and connect (P3) to (J1) of the KSI.
- e. Route segment (P4-gray sleeve) to the Detector Array, and connect (P4) to (J1) of the Detector Array.
- f. Route segment (P2-red sleeve) to the CU, and connect (P2) to (J1) of the CU.
- g. Route segment (P1-violet sleeve) to the Power Controller, and connect (P1) to (J1) of the Power Controller.

- h. Segment (P5) will not be connected in this configuration. Ensure the connector cover is secured over the connector, and secure the cable out of the way.

NOTE:

When vehicle is not in operation, recharge PCU by routing the cable through the ammo door and connect P5 to the vehicle power slave receptacle. Crank up vehicle and run for at least 20 minutes.

- i. Secure all cables out of the way with fastener tape or fastener tape tie-wraps.

2.3.2.12 LMTV Truck, 2.5 Ton. (See Figure 2-17.) See Figure 1-2 for Independent Target System (ITS) components.

2.3.2.12.1 Detector Array.

WARNING

Never touch the vehicle exhaust equipment when installing or removing MILES 2000 equipment. The exhaust can be very hot and cause severe burns.

CAUTION

Do not let MILES 2000 cables touch the vehicle exhaust or heating equipment. Heat can cause damage to cables and/or malfunction of the equipment.

CAUTION

Remember to move the Detector Array out of the way prior to performing PMCS.

ITS vehicle configurations are varied, so there is no specific way to install the Detector Array on a vehicle. When installing the Detector Array, follow the guidelines below:

- a. Remove Detector Array from the transit case, and inspect cable segments and detectors for damage.
- b. Wipe all detectors clean and inspect connectors for dirt and/or damage.
- c. Replace and report damaged equipment, as required.
- d. When routing array segments, whenever possible, there should be detectors installed on the right and left sides as well as on the front and rear. However, this is an ideal layout that should only be used if placement can be accomplished without interfering with normal vehicle operations or presenting a safety hazard. In some cases, the cabling may not be long enough to put detectors on all four sides.
- e. Secure all array segments with fastener tape at frequent intervals. Extra cable between detectors should be rolled and secured to the vehicle.

2.3.2.12.2 Kill Status Indicator (KSI). Use the best location that allows for 360E clearance/viewing for the specific truck configuration. Paragraph a. covers fastener tape attachment of the KSI. See Figure 1-2 for KSI

mounting adapters/plates.

a. Direct fastener tape attachment:

- (1) Remove the KSI and mounting plate from the transit case, and inspect the KSI for any damage that would prevent installation or operation.
- (2) Inspect strobe assembly of the KSI for cracks. Inspect connector for dirt, and bent or damaged pins.
- (3) Replace and report damaged equipment, as required.
- (4) Apply two (2) large strips of hook fastener tape to the top of the cab top on the commander's side.
- (5) Apply two (2) large strips of pile fastener tape to the bottom of the KSI adapter mounting plate, if needed.
- (6) Attach the KSI adapter mounting plate to the cab top on the commander's side, where the KSI will have 360E clearance. (Locations will vary with different truck configurations.)
- (7) Apply two (2) large strips of pile fastener tape to the bottom of the KSI if needed.
- (8) Place the KSI on the mounting plate. Ensure that the KSI and mounting plate are securely mounted.